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54 **A dispenser-container for wet tissues, and a process for manufacturing the same and an apparatus therefor.**

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GB-A- 1 382 183
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Description

BACKGROUND OF THE INVENTION

Field of the Invention

The present invention relates to a dispenser-container containing wet tissues impregnated with liquid in a container. The present invention also relates to a process for manufacturing the dispenser-containers and an apparatus for manufacturing the dispenser-containers.

Description of the Prior Art

Recently, wet tissues, i.e., fibrous materials, such as non-woven fabrics, woven fabrics, or gauze, impregnated with toilet water or cleaning solution including alcohol, moisturizing agent or surfactant and so on, have been utilized widely for cleansing make-up, cleaning skin or wiping stains in a kitchen, for example, stains around a gas range or stains in a refrigerator.

Conventionally known dispenser-containers for wet tissues are of a pop-up type, wherein wet tissues wound in a roll are packed in cylindrical containers which can be repeatedly opened and sealed, and the wet tissues are picked up from the upper portions of the cylindrical containers. (For Example, see Japanese Utility Model Publication No. Sho 48-33587.)

The rolled wet tissues are prepared by winding a long sheet-like material keeping its original width. The sheet-like material for wet tissues has a plurality of perforated lines extending transversely between both the longitudinal sides thereof and formed equidistantly along the longitudinal direction thereof. Upon use, if an end of the tissue material is pulled straightly and upwardly, the tissue material is torn at the perforated line when the portion with a perforated line passes through an aperture formed at the center of the closure of the container, and the tissue material is separated along the perforated line in individual tissues.

In the conventional container of a pop-up type, the wet tissue roll has to be stored in a condition wherein the roll axis is vertically directed, i.e., the roll axis is parallel to that of the cylindrical container, since the tissue material has to be taken up in an axial direction of the roll. Consequently, the height of the container is higher than the width of the roll. If the amount of tissues contained in the container is desired to be increased, the only solution is to increase the diameter of the container.

As described above, in the conventional pop-up type container for wet tissues, the size of the container is limited by the width of the wet tissues. More specifically, the height of the container cannot

be lower than the width of the wet tissues. Further, the amount of tissues cannot be increased even if the height of the container is made higher than the width of the wet tissues. In other words, the size of wet tissues to be contained in a container is limited by the size of the container.

In addition, in the above-described conventional pop-up type container, several turns of wet tissues closely adhere each other at the last end of the rolled tissue material, so that they are pulled upwardly in one body. Accordingly, there is another problem that tissues at the last end of the roll cannot pass well through the aperture and that they are torn inadequately.

Apart from the above-described dispenser-container of a cylindrical type, dispenser-containers for wet tissues for portable use have also been conventionally known. (For example, see Japanese Utility Model Publication No. Sho 59-2696.)

The conventionally known dispenser-container of wet tissues for portable use is a flat bag which usually contains about 10 tissues. The dispenser-container has an opening and a resealable flap for covering the opening. For example, the resealable flap may be made of a sheet having pressure sensitive adhesive coated on one side thereof, and the sheet is attached to the dispenser-container so that it covers the opening formed on the dispenser-container.

Another dispenser-container of a flat bag type has a U-shaped slit formed thereon, and the region surrounded by the slit is used as a flap while a small piece of sheet, which piece is larger than the flap, which piece has pressure sensitive adhesive coated thereon and which piece has an opening for dispensing the wet tissues therethrough, is attached to the portion corresponding to the above-described slit from the inside of the dispenser-container by the pressure sensitive adhesive.

Such a dispenser-container of a flat bag type contains wet tissues, which are separated in individual pieces, and accordingly, after one tissue is dispensed, the flap is closed until the next dispensing operation wherein the flap is opened again and the top one of tissues is dispensed.

The above-described dispenser-containers of a bag type for wet tissues can be manufactured at a cost lower than that required for the molded containers, because the dispenser-containers can be easily made of a flexible sheet material at a high manufacturing efficiency.

In such a dispenser-container, wet tissues separated in individual pieces are individually folded transversely and longitudinally in accordance with the size of the dispenser-container, and they are stacked and contained in the dispenser-container. Therefore, when large tissues are required to be contained in a small dispenser-container, the tis-

sues have to be folded transversely and longitudinally for many times. However, when the folding process is complicated, the process cannot be done by a machine, and accordingly, the manufacturing efficiency is low. Thus, the size of tissues to be contained in a dispenser-container is similarly limited by the size of the dispenser-container.

Furthermore, in a conventional portable dispenser-container for wet tissues, there is another problem that the tissue located just below the uppermost tissue is picked up together with the uppermost tissue when the latter is required to be picked up.

In addition, since the wet tissues, which are in a wet condition, are folded transversely and longitudinally to form small pieces, they have to be spreaded in the transverse and longitudinal directions after they are taken out from the dispenser-container and before they are used. However, folded portions in the wet tissues which are in surface contact adhere to each other, and accordingly, it is difficult and troublesome to spread such adhering portions.

US-A-3,477,200 relates to a flexible packaging equipment which will form a longitudinally folded pad from a continuous sheet and then fold such pad at least twice transversely of the length thereof and insert such folded pad into an envelope. After filling such envelope with solution to saturate the pad the equipment provides for sealing of said envelope.

GB-A-1 382 183 discloses a dispenser containing and dispensing absorbent material which comprises a closed container having a slit in a wall thereof, and a continuous sheet-like, absorbent material in pleated form, impregnated with liquid, in said container, said absorbent material being extractable through the slit which is in turn adapted to inhibit substantial drying out of the material within the container by having yielding edges which tend to close it, said slit having a width considerably shorter than that of the sheet, whereby the latter is withdrawn in rope-like form from the container.

Objects of the Invention

It is an object of the present invention to obviate the problems inherent to the conventional dispenser-container for wet tissues.

It is another object of the present invention to provide a dispenser-container for wet tissues wherein the size of a container and that of wet tissues contained in the container do not set a limit to each other, regardless of a type of the container, i.e., a cylindrical container or bag type dispenser-container.

It is a further object of the present invention to provide a dispenser-container wherein wet tissues

having an optional size are contained in a container having an optional size.

It is still further object to provide a process for manufacturing such dispenser-containers and an apparatus for manufacturing the dispenser-containers.

Summary of the Invention

According to the preset invention, the above-described objects are achieved by a dispenser-container for wet tissues arranged therein, said tissues being impregnated with liquid characterized in that the wet tissues, arranged in the container are gathered in a widthwise direction in order to be formed in a rope-like shape and are arranged in an orderly rope-like manner inside the container prior to being extracted through a dispenser-container opening.

The rope-like wet tissues may be made of a continuous sheet-like material which has weakened lines for separating therealong at a predetermined distance.

The container may be a cylinder or box, or it may be made of a flexible and impervious sheet.

Further, the present invention provides a process for manufacturing such a dispenser-container for wet tissues, which process is characterized in that a long sheet-like tissue material is gathered in a widthwise direction so as to be formed in a rope-like shape and then is contained in a container, and that the tissue material is wetted before or after it is contained in the container.

Further, the present invention provides an apparatus for manufacturing such a dispenser-container for wet tissues, which comprises:

a means for continuously supplying tissue material;

a means for gathering the tissue material in a widthwise direction so as to form in a rope-like shape;

a means for stacking or winding the gathered tissue material keeping its rope-like shape; and

a means for wetting the tissue material.

According to the present invention, after the tissue material to be in a wet condition is gathered in a widthwise direction so as to be formed in a rope-like shape, it is contained in a container.

Accordingly, the size of the wet tissue is not limited by the size of the container. In addition, the size of the wet tissue does not set a limit to the size of the container.

Thus, a dispenser-container for wet tissues can be obtained regardless of a cylindrical container type or a bag type wherein wet tissues of an optional size are contained in a container of an optional size.

Further, since wet tissue material is formed in a rope-like shape by gathering it in a widthwise direction, wet tissues do not adhere each other even at the last portion of the wet tissue material unlike the conventional wet tissues wound in a roll, and they can be taken up smoothly until the last piece.

Furthermore, since the wet tissue material is gathered in a widthwise direction so as to be formed in a rope-like shape, each wet tissue can be taken out easily one by one unlike the folded wet tissues in the conventional portable dispenser-container for wet tissues. According to the present invention, the wet tissues are formed in rope-like shape gathered in a widthwise direction but are not folded in both widthwise and lengthwise directions in a wet condition so that they can be easily spreaded.

BRIEF DESCRIPTION OF THE DRAWINGS

The present invention will now be explained in detail based on the illustrated embodiments with reference to the accompanying drawings, wherein:

Fig. 1 is a perspective view, a part of which is broken out, and which illustrates an embodiment of a dispenser-container for wet tissues according to the present invention;

Fig. 2 is a flow diagram of an embodiment of a process for manufacturing a dispenser-container for wet tissues according to the present invention, a part of which is a plan view and the other part of which is a side view;

Fig. 3 is a plan view of a long sheet-like tissue material which is used in the present invention;

Fig. 4 (a) is a plan view which illustrates an embodiment of a locus along which a rope-like shape wet tissue material is stacked;

Fig. 4 (b) is a plan view which illustrates the arrangement and motion of a tube-like guide and a table which are used to draw the locus illustrated in Fig. 4 (a);

Fig. 5 is a perspective view, a part of which is broken out, and which illustrates another embodiment of a dispenser-container for wet tissues according to the present invention;

Fig. 6 is a perspective view illustrating another embodiment of a dispenser-container for wet tissues according to the present invention; and

Fig. 7 is a perspective view illustrating a further embodiment of a dispenser-container for wet tissues according to the present invention.

PREFERRED EMBODIMENTS

Fig. 1, is a perspective view, a part of which is broken out, and which illustrates an embodiment of a dispenser-container for wet tissues according to the present invention.

In the first embodiment of the dispenser-container for wet tissues according to the present invention, wet tissues 3 are impregnated with liquid, are being in a wet condition and are contained in a conventionally known cylindrical container 1.

The container 1 comprises a cylindrical container body 10 and a closure member 11 covered onto the container body 10, which are usually made of a synthetic resin and is blow molded or vacuum formed. The closure member 11 has an opening 12 for dispensing wet tissues 3 therethrough and a cap 14 for repeatedly opening and sealing the dispensing opening 12.

According to the present invention, the wet tissues 3 are different from the conventional wet tissues in that the wet tissues 3 of the present invention are formed in a rope-like shape by being gathered in a widthwise direction. The wet tissues 3 of the present invention are contained in the container 1.

Materials which are used for wet tissues 3 may be, for example, fibrous materials, such as non-woven fabric, paper or gauze, or foam formed in a sheet.

Liquid which is impregnated with the tissue material may be, for example, liquid cosmetics, such as toilet water or milky lotion; drugs, such as an antiseptic or a medicine; cleaning solution for cleaning skin, including alcohol, moisturizing agent, surfactant and so on; or solution for wiping stains in a kitchen, including alcohol, agent, surfactant and so on.

The wet tissues 3 of the present invention may be made of a long continuous sheet-like tissue material 30, which has perforated lines 31 transversely extending between its longitudinal sides at a predetermined distance for separating therealong in short individual pieces 32 as illustrated in Fig. 3, and which is formed in rope-like shape.

Fig. 2 is a flow diagram of an embodiment of a process for manufacturing a dispenser-container for wet tissues according to the present invention, a part of which is illustrated in a plan view and the other part of which is illustrated in a side view;

First, the continuous sheet-like tissue material 30 is withdrawn from a supply roll 40 for wet tissues. Then, perforated lines 31, which are used to separate the tissue material 30 therealong, are formed on the tissue material 30 between its longitudinal sides at a predetermined distance in a longitudinal direction by a device 41 for forming the perforated lines 31. The device 41 is of a conventionally known type. In place of formation of the perforated lines 31 on the tissue material 30 withdrawn from the supply roll 40, perforated lines 31 may be formed on tissue material 30 before the tissue material 30 is wound in a supply roll 40, and then the tissue material 30 with the perforated lines

31 may be wound to form supply roll 40.

Thereafter, the tissue material 30 is introduced into a tube 42 formed in a funnel shape, i.e., a shape with a large diameter at the side near the supply roll 40 and a small converging diameter at the opposite side, so that the tissue material 30 is gathered to be formed in a rope-like shape. Please note that the above-described steps are illustrated in a plan view in Fig. 2. In this case, it is preferred that moisture, such as steam, water or impregnating liquid, is appropriately added to the tissue material 30 before or after it enters into the funnel tube 42 or it is within the funnel tube 42 so that the tissue material 30 is moistened. In Fig. 2, a moistening device is designated by reference numeral 42a. Because of moistening, the tissue material 30 can be easily gathered, and the condition gathered in a rope-like shape can be readily maintained.

The device for forming the tissue material 30 in a rope-like shape is not limited to the funnel tube 42. Any device may be used regardless of its construction as long as it can gather a tissue material 30 in a widthwise direction. For example, a simple ring may be used for the device for forming the tissue material 30 in a rope-like shape.

The tissue material 30 which has been formed in a rope-like shape in a foregoing manner is stacked in any optical shape by means of a suitable device. For example, the tissue material 30 is stacked in a coil shape as illustrated in Fig. 4 (a). In order to stack it as illustrated in Fig. 4 (a), a stacking method similar to the method for stacking sliver in a can by a coiler motion which has been applied in the cotton spinning field is acceptable. As illustrated in Fig. 2, wherein the steps which will be described below are illustrated in a side view, and Fig. 4 (b), a rotary center O of a tube guide 43 is arranged in such a manner that it deviates from a rotary center P of a turn table 44. The tissue material 30 formed in a rope-like shape is passed through the tube guide 43 and guided by the exit end 43a of the tube guide 43 while the tube guide 43 is rotated, and the tissue material 30 is stacked on the turn table 44 which is rotating. Thus, the rotary center O of the guide 43 draws a circle about the rotary center P of the turn table 44, and at the same time, the exit end 43a of the guide 43 also draws a circle about the rotary center O of the guide 43. As a result, the tissue material 30 is stacked in a vortical shape as illustrated in Fig. 4, (a).

In another method for stacking the tissue material 30, the tissue material 30 is dropped while the guide 43 is laterally traversed to and fro, and at the same time, the table 44 is traversed transversely to the traversing direction of the guide 43. As a result, the tissue material 30 may be stacked in a rectangular shape.

In a further stacking method, while the guide 43 is rotated, the radius of the rotary portion of the guide 43 is varied, i.e., increased and decreased. Alternatively, the position of the exit end of the guide 43 is slightly moved laterally while the table 44 is rotated. Thus, the tissue material 30 may be stacked in a cylindrical shape.

When a predetermined length of or a predetermined amount of tissue material 30 is stacked, the tissue material 30 is cut by a cutter 45. Then, the stacked tissue material 30 is conveyed from the table 44 to a conveyor 47 by a pushing device 46. Thereafter, the tissue material 30 is contained in the container body 10 of the container 1. Before or after the tissue material 30 is stored in the container 1, impregnating liquid is poured to the tissue material 30 so as to wet the latter to form wet tissues 3. Please note that impregnating liquid is poured to the tissue material 30 by a wetting device 48 after the tissue material 30 is stored in the container 1 in Fig. 2.

In case that the tissue material 30 has been sufficiently wetted with impregnating liquid at, before or after the device 42 for forming a rope-like shape, application of impregnating liquid to the tissue material 30 at the final stage may be omitted.

In the foregoing embodiment, the tissue material 30 is stacked on the table 44. However, in place of stacking of the tissue material 30 on the table 44, the tissue material 30 formed in a rope-like shape may be wound on a bobbin, and then, the bobbin may be removed so that coreless cylindrical tissue material 30 is obtained.

Fig. 5 is a partially broken out perspective view illustration another embodiment of a dispenser-container for wet tissues according to the present invention.

In this embodiment, the wet tissues 3 formed in a rope-like shape are shaped in a rectangular parallelepiped and are stored in a square container 1.

The container 1 comprises: a main body 10 formed in a rectangular parallelepiped and provided with open bottom; and a bottom plate 15 sealingly covering the open bottom of the main body 10. The main body 10 has a recess 16 at around the center of the top surface thereof. A dispensing opening 12 is formed on the bottom 17 of the recess 16 so that the wet tissues 3 formed in a rope-like shape can be dispensed through the opening 12. Further, a flap 14 is disposed on the top surface of the main body 10 in such a manner that the flap 14 can be repeatedly opened and sealingly closed the recess 16.

The main body 10 of the container 1 may be made of a synthetic resin and is blow molded or vacuum formed integrally with the recess. In this

case, it is preferred that the thickness of the container is set relatively thin. If the thickness is large as a whole, it is recommended that at least the bottom 17 of the recess 16 is thinned.

The material and the construction of the flap 14 are not limited as long as the flap can be repeatedly opened and sealingly closed. It is preferred that an end of the flap 14 is fixed to the main 10 body by any suitable method, for example, adhesive or heat sealing.

The flap 14 illustrated in Fig. 5 is made of a liquid impervious sheet, and it has a pressure sensitive adhesive 14a, such as polyester, acrylic or rubber adhesive, applied to one side of the flap 14, i.e., the side contacting with main body 10, except for a grip portion 14c. This flap is simple in its construction. The pressure sensitive adhesive 14a may be applied to the entire surface of one side. However, in order to prevent wet tissues 3 from being adhered by the pressure sensitive adhesive 14a when they are dispensed, it is preferred that the pressure sensitive adhesive 14a is applied to only the periphery of the flap 14 or that as illustrated in Fig. 5 a piece of sheet 14b is adhered to a portion corresponding to the recess while the pressure sensitive adhesive 14a may be applied to the entire surface.

After the wet tissues 3 formed in a rope-like shape are stored in the main body 10 of the container 1, which has the above-described construction, from its open bottom, the bottom plate 15 is attached to the main body 10. The material and the construction of the bottom plate 15 are not limited as long as the bottom plate can be sealingly attached to the main body 10. For example, a liquid impervious sheet is used for the bottom plate 15 and is permanently secured to the open bottom of the main body 10 of the container 1 by means of adhesive or heat sealing.

When the bottom plate 15 is permanently secured as described above, this embodiment is different from that illustrated in Fig. 1 in that the wet tissues 3 cannot be picked up by removing the closure member 11. Accordingly, the shape of the dispensing opening 12 which is formed at the bottom 17 of the recess 16 is so designed that fingers of a user can be entered therethrough so that user can access the wet tissues 3 formed in a rope-like shape. For this purpose, as illustrated in Fig. 5, the dispensing opening 12 comprises a small aperture 12a and several slits 12b extending from the small aperture 12a.

When the dispenser-container of the present invention is used first, fingers of a user are inserted into the dispensing opening 12. Then the opening 12 is widened because of the existence of the slits 12b and the bottom 17 is deformed. Accordingly, the wet tissues 3 can be picked up by the fingers.

In case that the tissue material is long and continuous, a picked up wet tissue 3 is torn at a weakened line 31 from the succeeding wet tissues 3 by the resistance caused by the small aperture 12a.

As described above, when the wet tissues 3 are picked up, a part of the succeeding wet tissues 3 also comes out through the opening 12. However, the latter wet tissue 3 is held by the small aperture 12a of the opening 12. Accordingly, the succeeding wet tissue 3 remains in a condition wherein only a part of the wet tissue is exposed outside. The exposed portion of the wet tissue 3 can be accommodated within the recessed portion 16. After the desired number of the wet tissues 3 are taken out, the flap 14 is closed again and is adhered to the top surface of the container 1. Thus, the container 1 recovers its sealed condition.

Fig. 6 is a perspective view illustrating a still other embodiment of a dispenser-container for wet tissues according to the present invention.

The dispenser-container for wet tissues of the present embodiment comprises a resealable container 1 of a pillow type which is made of flexible sheet, a tray member 2 which is made of a material harder than that of the container 1, and wet tissues 3 formed in a rope-like shape. The tray member 2 and the wet tissues 3 are illustrated by broken lines in Fig. 6.

The resealable container 1 has an opening 12 for dispensing the wet tissues 3, which are formed in a rope-like shape, therethrough and a flap 14 for covering the opening 12, and the construction of the container may be similar to that of the conventionally known portable dispenser-container of a bag type for wet tissues.

The flexible sheet constituting a container body 10 may be a film made of synthetic resins such as polyethylene, polypropylene, polyester, polyamide, and polyvinyl chloride, and the film may be a single layer or a laminated layer. The film may be a laminated layer of the above-mentioned film and an aluminum foil or paper.

The sheet constituting the container body 10 may be gas impervious or liquid impervious depending on the kind of the liquid impregnated in wet tissues 3. For example, when the impregnating liquid contains perfumes which easily volatilizes, it is preferred to use a sheet which is impervious to both gas and liquid.

In the embodiment illustrated in Fig. 6 the flap 14 of the container 1 is a piece of a sheet which is independent from the container body 10. The material of the flap 14 may be a liquid impervious sheet which is similar to that of the container body 10. In this embodiment, both the sheet of the container body 10 and the flap 14 are liquid impervious.

The flap 14 has a pressure sensitive adhesive 14c, such as polyester, acrylic or rubber adhesive, applied to one side of the flap 14, i.e., the side contacting with container body 10, except for a grip portion 14c. The flap 14 can be repeatedly adhered to and removed from the container body 10 while it covers the dispensing opening 12 formed in the container body 10 or the weakened line for forming the dispensing opening 12.

It is preferred that an end 14d of the flap 14 opposite to the grip 14c is fixed to the container body 10 by heat sealing or adhesive or that the flap 14 has at the end 14d slits extending from its sides or U-shaped slits so that the slits prevent the end portion 14d from being removed.

The dispensing opening 12 formed in the container body 10 may be formed in any suitable shape, such as an ellipse, a circle, a rectangle or a rhombus. When the dispensing opening 12 is formed by a weakened line, the weakened line may be a perforated line when it is seen in the plan view of the container body 10 or may be a V-shaped slit when it is seen in a cross sectional view taken along the thickness direction of the sheet forming the container body 10. The weakened line is formed on the container body 10 to form a closed loop or an open loop such as U-shape when it is seen in the plan view of the container body 10.

When the flap 14 is opened first to use the wet tissues 3, the portion 14e surrounded by the closed loop or the open loop is removed from the container body 10 and is kept to be attached to the flap 14 (see Fig. 6), and the area, from which the portion 14e is removed, becomes the dispensing opening 12.

As illustrated in Fig. 6, the tray member 2 is contained within the container 1 and is located between the wet tissues 3 and the top surface of the container 1, i.e., the surface which surface has the dispensing opening 12 formed therein and the flap 14 attached thereto and which surface is opposite to the bottom surface.

The tray member 2 has a flat or substantially flat top surface 21 and a recessed portion 22 formed at almost the center of the top surface 21. The tray member 2 preferably comprises side wall 23 connected to peripheries of the top surface 21. The bottom surface 24 of the recessed portion 22 of the tray member 2 has a dispensing opening 25 formed therein, which opening is used to dispense wet tissues 3 formed in a rope-like shape. The dispensing opening 25 formed in the tray member 2 may be formed in any suitable shape as long as fingers can be inserted therethrough to pick up a rope-like shaped wet tissues 3, and the picked up wet tissues 3 can be held by the opening 25, similar to the dispensing opening 12 formed in the

recessed portion 16 of the embodiment illustrated in Fig. 5.

In the embodiment illustrated in Fig. 6, when the flap 14 is opened first to use the wet tissues 3, the recessed portion 22 of the tray member 12 is located just below the dispensing opening 12. Therefore, the user can insert his or her fingers into the container 1 through the dispensing opening 25 of the tray member 12 and pick up the wet tissues 3 contained within the container 1.

Similar to the embodiment explained with reference to Fig. 5, a part of the succeeding wet tissues 3, which will be used next time, also comes out together with the wet tissue 3 which will be used at present. However, the end of the succeeding wet tissues 3 is held by the dispensing opening 25. Then, the container 1 recovers its sealed condition, when the flap 14 is adhered to the container 1 again.

In the embodiment illustrated in Fig. 6, since the container 1 is a dispenser-container made of a flexible sheet-like material, the container 1 is deformable. Accordingly, when the amount of the wet tissues 3 is decreased as they are dispensed, the container 1 can be flat. Therefore, if the wet tissue 3 for the next use cannot be dispensed well through the dispensing opening 25 of the tray member, the wet tissue 3 is easily accessible through the opening 25 regardless of the remaining amount of the wet tissues 3 in the container 1.

It was explained that the container 1 in the above-described embodiment is of a pillow type. However, the dispenser-container made of a flexible sheet-like material is not limited to of a pillow type, and a three sided seal bag or a tube provided with sealed ends may be used. In these cases, similar to the embodiment illustrated in Fig. 6, it is preferred that a sheet-like flap having pressure sensitive adhesive coated thereon is disposed, and it is preferred that a tray member having a dispensing opening, which opening can hold wet tissues 3, is inserted within the dispenser-container. For example, one end of a tube, which is made of a liquid impervious sheet, is sealed to form a bag. And wet tissue material, which has been stacked in a cylindrical shape, is inserted into the bag, and a tray member is put on the wet tissue material, or the wet tissue material is inserted after the tray member has been inserted into the tube. Then, the open end of the bag is sealed to form the dispenser-container for wet tissues of the present invention. In this case, it is preferred that a dispensing opening and a flap have been previously disposed on one side, i.e., the side where the tray member locates, before the wet tissue material is stored.

Fig. 7 is a perspective view illustrating a further embodiment of a dispenser-container for wet tissues according to the present invention.

The dispenser-container for wet tissues of the present embodiment comprises a main body 10 and a closure member 11 covered onto the container body 10. The main body 10 has an opening 12 for dispensing wet tissues 3 therethrough and a flap 14 for repeatedly opening and sealing the dispensing opening 12. Further a mount 19, which is provided with an engaging hole 19a, is attached to the main body 10 so that the dispenser-container can be hung on wall. The closure member is removable, and a user can freely access wet tissues 3 contained in the main body 10, when the closure member is removed. Therefore, the main body 10 is not required to be deformable, and it may have a large depth.

The dispenser-containers for wet tissues of the present invention are not limited to the above-described embodiments. Especially, the container 1 may have any construction, shape and material as long as it is liquid impervious and hermetically sealed.

Advantages of the Invention

According to the present invention, a tissue material in a wet condition, which has been formed in a rope-like shape, is contained in a container. Accordingly, the size of the wet tissue is not limited by the size of the container. In addition, the size of the wet tissue does not set a limit to the size of the container. Further, the amount of wet tissues contained in the container is not limited by the size of the wet tissues and can be varied at will by changing the size of the container.

Thus, a dispenser-container for wet tissues can be obtained regardless of a cylindrical container type or a bag type wherein wet tissues of an optional size are contained in a container of an optional size.

Further, since wet tissue material is formed in a rope-like shape, excessive wet tissues are not picked up from the container when they are used, and they can be taken up smoothly one by one until the last piece. Accordingly, the wet tissues are not wasted.

Claims

1. A dispenser-container (1) comprising wet tissues (3) arranged therein said tissues (3) being impregnated with liquid, characterized in that the wet tissues (3), arranged in the container (1) are gathered in a widthwise direction in order to be formed in a rope-like shape and are arranged in an orderly rope-like manner inside the container prior to being extracted through a dispenser-container opening (12).

2. A dispenser-container comprising wet tissues according to claim 1 characterized in that the wet tissues in the rope-like shape, are formed from a continuous sheet (30) of tissue material which has weakened lines (31) for separating individual sheets (32) of tissue material at pre-determined intervals along the length of the continuous sheet of tissue material.

3. A dispenser-container comprising wet tissues according to claims 1 and 2, characterized in that the container (1) is made of a flexible and impervious sheet-like material.

4. A dispenser-container comprising wet tissues according to any one of claims 1 to 3, characterized in that the container (1) has a cylindrical shape.

5. A dispenser-container comprising wet tissues according to any one of claims 1 to 3, characterized in that the container (1) is a box.

6. A process for manufacturing a dispenser-container comprising wet tissues, in which process a continuous perforated sheet (30) of tissue material is arranged in the dispenser-container (1) characterized in that the tissue material (30,33) is gathered in a widthwise direction in order to be formed into a rope-like shape, the tissue material in the rope-like shape is arranged in the dispenser-container (1) and the tissue (3) is wetted before or after it is arranged in the dispenser-container (1).

7. An apparatus for manufacturing a dispenser-container comprising wet tissues according to the process of claim 6 having means (40,50) to continuously supply tissue material, means for arranging the tissue material in a dispenser-container and means (48) to apply a liquid to the tissue material, characterized in that the apparatus comprises a widthwise gathering zone (42) to form the tissue material (30,33) into a rope-like shape by passing the tissue material through the widthwise gathering zone (42).

8. The apparatus of claim 7, wherein the widthwise gathering zone comprises a funnel-like arrangement (42) conveying in a direction in which the tissue material (30,33) is passing through the widthwise gathering zone (42) the smallest diameter of the funnel-like arrangement being smaller than the width of the continuous tissue material (30,33).

9. The apparatus of claim 7, wherein the width-wise gathering zone comprises a ring with the smallest diameter smaller than the width of continuous tissue material (30,33).
10. The apparatus of one of the claims 7, 8 and 9, characterized in that the apparatus comprises a rotatable tube guide (43) through which the tissue material (30,33) in a rope-like shape passes before being arranged in the dispenser-container (1).

Patentansprüche

1. Ausgabebehälter (1) mit feuchten Tüchern (3), die in dem Ausgabebehälter angeordnet sind, wobei die Tücher (3) mit Flüssigkeit imprägniert sind, dadurch gekennzeichnet, daß die feuchten Tücher (3), die in dem Behälter (1) angeordnet sind, in Breitenrichtung zusammengefaßt sind, unter Ausbildung einer strangartigen Form und daS sie innerhalb des Behälters in geordneter strangartiger Weise angeordnet sind, bevor sie durch die Öffnung (12) des Ausgabebehälters entnommen werden.
2. Ausgabebehälter mit feuchten Tüchern nach Anspruch 1, dadurch gekennzeichnet, daS die feuchten Tücher in der strangartigen Form aus einer endlosen Bahn (30) aus Tuchmaterial gebildet werden, die Schwächungslinien (31) aufweist, zur Abtrennung einzelner Blätter (32) des Tuchmaterials in vorbestimmten Intervallen längs der Länge der kontinuierlichen Bahn aus Tuchmaterial.
3. Ausgabebehälter mit feuchten Tüchern nach Ansprüchen 1 und 2, dadurch gekennzeichnet, daS der Behälter (1) aus einem flexiblen und undurchlässigen blattförmigen Material hergestellt ist.
4. Ausgabebehälter mit feuchten Tüchern nach einem der Ansprüche 1 bis 3, dadurch gekennzeichnet, daß der Behälter (1) eine zylindrische Form hat.
5. Ausgabebehälter mit feuchten Tüchern nach einem der Ansprüche 1 bis 3, dadurch gekennzeichnet, daß der Behälter (1) eine Dose oder Schachtel ist.
6. Verfahren zur Herstellung eines Ausgabebehälters mit feuchten Tüchern, bei dem eine endlose perforierte Bahn (30) aus Tuchmaterial in dem Ausgabebehälter (1) angeordnet wird, dadurch gekennzeichnet, daß das Tuchmaterial (30,33) in Breitenrichtung Zusammengefaßt

wird, um es in eine strangartige Form zu überführen, bei dem das Tuchmaterial in dem Ausgabebehälter (1) in strangartiger Weise angeordnet wird, und bei dem die Tücher (3) vor oder nachdem sie in dem Ausgabebehälter (1) angeordnet werden, befeuchtet werden.

7. Vorrichtung zur Herstellung eines Ausgabebehälters mit feuchten Tüchern nach dem Verfahren des Anspruches 6 mit Vorrichtungen (40,50) für die kontinuierliche Zufuhr von Tuchmaterial, Mitteln zum Anordnen des Tuchmaterials in einem Ausgabebehälter und mit Mitteln (48) für die Zufuhr einer Flüssigkeit zu dem Tuchmaterial, dadurch gekennzeichnet, daß die Vorrichtung eine Zone (42) für die breitenweise Zusammenfassung aufweist, um das Tuchmaterial (30,33) in eine strangförmige Form zu überführen, indem das Tuchmaterial durch die Zusammenfaßzone (42) geführt wird, in der das Material in Breitenrichtung zusammengefaßt wird.
8. Vorrichtung nach Anspruch 7, bei dem die Zusammenfaßzone in Breitenrichtung eine trichterartige Anordnung (42) aufweist, die das Material in einer Richtung befördert, in der das Tuchmaterial (30,33) durch die Zusammenfaßzone (42) geführt wird, wobei der kleinste Durchmesser der trichterartigen Anordnung kleiner ist als die Breite des endlosen Tuchmaterials (30,33).
9. Vorrichtung nach Anspruch 7, in der die breitenweise Zusammenfaßzone einen Ring aufweist, dessen kleinster Durchmesser kleiner ist als die Breite des endlosen Tuchmaterials (30,33).
10. Vorrichtung nach einem der Ansprüche 7, 8 und 9, dadurch gekennzeichnet, daß die Vorrichtung ein rotierbares Rohr-Führungselement (43) aufweist, durch das das Tuchmaterial (30,33) in einer strangförmigen Form gelangt, bevor es in dem Ausgabebehälter (1) angeordnet wird.

Revendications

1. Boîte distributrice (1) comprenant des mouchoirs imprégnés (3) disposés dans celle-ci lesdits mouchoirs (3) étant imprégnés d'un liquide, caractérisé en ce que les mouchoirs imprégnés (3), disposés dans la boîte (1) sont compressés dans le sens de la largeur afin de prendre la forme d'une corde et sont placés de façon ordonnée à la manière d'une corde à l'intérieur d'une boîte avant d'être extraits à

travers une ouverture (12) dans la boîte distributrice.

2. Boîte distributrice (1) comprenant des mouchoirs imprégnés selon la revendication 1 caractérisé en ce que les mouchoirs imprégnés sous la forme d'une corde sont formés à partir d'une feuille continue (30) de matière à mouchoirs qui a des lignes d'affaiblissement (31) pour la séparation des feuilles individuelles (32) de la matière à mouchoirs, à des intervalles prédéterminés sur la longueur de la feuille continue de la matière à mouchoirs. 5 10
3. Boîte distributrice (1) comprenant des mouchoirs imprégnés selon les revendications 1 et 2, caractérisé en ce que la boîte 1 est fabriquée dans une matière souple et imperméable sous forme de feuille. 15 20
4. Boîte distributrice comprenant des mouchoirs imprégnés selon l'une quelconque des revendications 1 à 3, caractérisé en ce que la boîte (1) a une forme cylindrique. 25
5. Boîte distributrice contenant des mouchoirs imprégnés selon l'une quelconque des revendications 1 à 3, caractérisé en ce que la boîte (1) est une boîte normale. 30
6. Procédé de fabrication d'une boîte distributrice comprenant des mouchoirs imprégnés, procédé dans lequel une feuille perforée continue (30) de matière à mouchoirs est disposée dans la boîte distributrice (1) caractérisé en ce que la matière à mouchoirs (30, 33), est compressée dans le sens de la largeur pour prendre la forme d'une corde, la matière à mouchoirs en forme de corde est disposée dans la boîte distributrice (1) et le mouchoir (3) est imprégné avant ou après d'être placé dans la boîte distributrice (1). 35 40
7. Appareil pour fabriquer une boîte distributrice comprenant des mouchoirs imprégnés selon le procédé de la revendication 6 ayant un dispositif (40, 50) pour fournir continuellement de la matière à mouchoirs, un dispositif pour disposer la matière à mouchoirs dans une boîte distributrice et un dispositif (48) pour fournir un liquide sur la matière à mouchoirs, caractérisé en ce que l'appareil comprend une zone de compression dans le sens de la largeur (42) pour donner à la matière à mouchoirs (30, 33) la forme d'une corde, en passant la matière à mouchoirs à travers une zone de compression dans le sens de la largeur (42). 45 50 55

8. Appareil selon la revendication 7, dans lequel la zone de compression dans le sens de largeur comprend une disposition en forme d'entonnoir (42), convoyant dans une direction dans laquelle la matière à mouchoirs (30, 33) traverse la zone de compression dans le sens de la largeur (42) le diamètre le plus petit de l'arrangement en forme d'entonnoir étant plus petit que la largeur de la matière continue à mouchoirs (30, 33).
9. Appareil selon la revendication 7, dans lequel la zone de compression dans le sens de largeur comprend un anneau avec le plus petit diamètre plus petit que la largeur de la matière continue des mouchoirs (30, 33).
10. Appareil selon l'une des revendications, 7, 8 et 9, caractérisé en ce que l'appareil comprend un guide en forme de tube rotatif (43) à travers lequel la matière à mouchoirs (30, 33) sous forme de corde passe avant d'être disposée dans la boîte distributrice (1).

FIG. 1

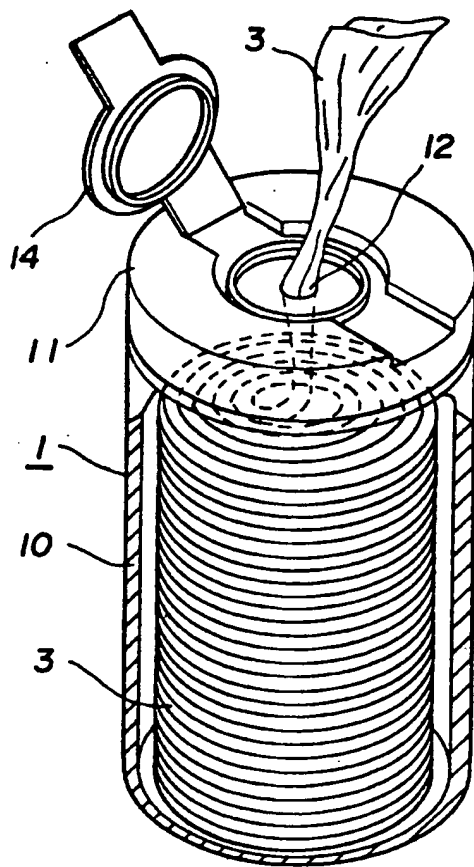


FIG. 3

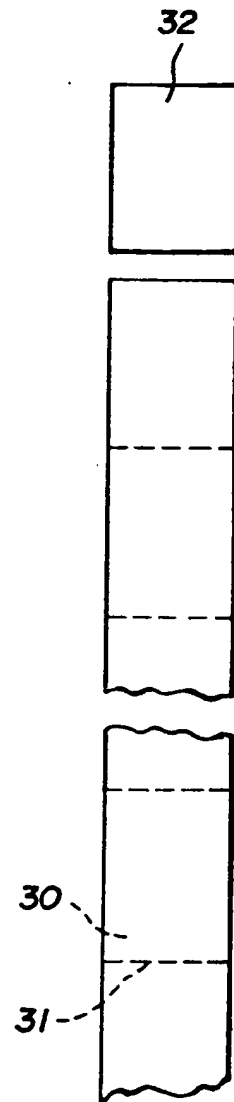


FIG. 2

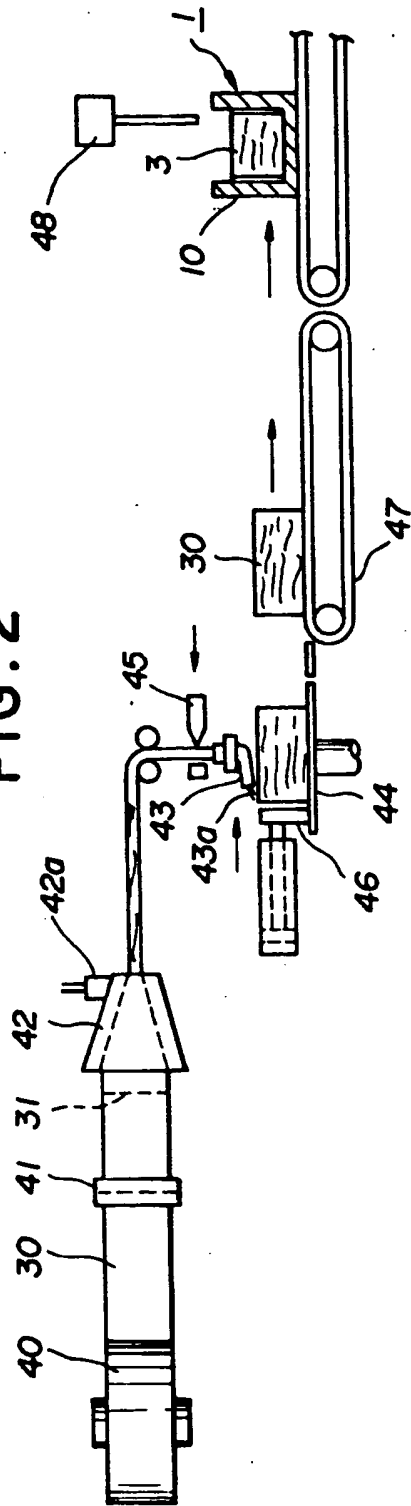


FIG. 4 (a)

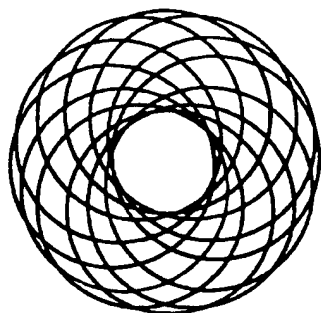


FIG. 4 (b)

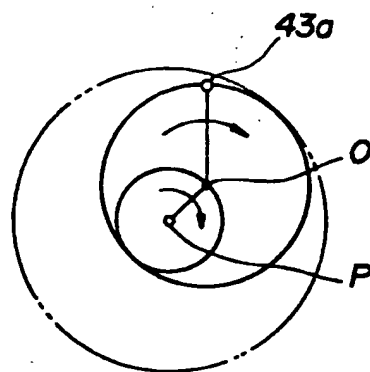


FIG. 5

